

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested.

Claim 1-18 are currently pending, wherein claims 1, 7 and 13 are independent. Claims 13-18 have been added. Support for these new claims can be found at least on page 4, line 2 to page 6, line 6 and Figures 3-5 of the present application. No new matter has been introduced by way of these new claims.

Claims 1 and 7 have been amended merely to make grammatical changes to these claims. These amendments do not narrow or otherwise limit the scope of the claims, are not made for any purpose related to patentability, and are fully supported by the present application. No new matter has been introduced by way of these amendments.

Applicant respectfully notes that a claim for foreign priority under 35 U.S.C. § 119 from Japanese patent application number 2002-190156 (filed June 28, 2002) was submitted on June 25, 2003, along with a certified copy of the foreign priority application. However, to date, the Patent Office has failed to acknowledge Applicant's claim for foreign priority and receipt of the certified copy of the priority document. Applicant respectfully requests that the Patent Office acknowledge Applicant's claim for foreign priority and receipt of the certified copy of the priority document in the next Patent Office communication.

In the second section of the Office Action, claims 1-12 are rejected under 35 U.S.C. § 102(b) as allegedly being unpatentable over Taicher (U.S. Patent No. 6,586,931, hereinafter "Taicher"). This rejection is respectfully traversed.

Conventionally, coil shaped elements of an antenna unit have been fully covered with a case. Consequently, the sensitivity in radio wave transmission and reception has been lowered by the case.

To address this problem, exemplary embodiments of the present invention are directed to an antenna unit in which the sensitivity in radio wave transmission and reception is increased. The antenna unit provides a coil of small diameter, a coil of large diameter, and a case that covers the coils. As illustrated in Figure 3 of the present application, the case 5 has plural opening parts 6 and 7, positioned in proximity to the coils, and sized and configured to maintain durability of the case 5. At the positions near the opening parts 6 and 7, the quantity of radio waves inputting to the coil of small diameter 1 and the coil of large diameter 2 becomes large, and the quantity of radio waves outputting from the coil of small diameter 1 and the coil of large diameter 2 becomes large, because of the opening parts 6 and 7. Therefore, according to the exemplary structure, the sensitivity in radio wave transmission and reception is increased, and higher gain can be obtained. [present application, page 4, lines 16-25]

In complete contrast to the present invention, Taicher discloses an apparatus and method for performing nuclear magnetic resonance measurements using a borehole tool. A polarizing coil on the tool is activated to align nuclear spins in the earth parallel to the magnetic field produced by the coil. The current in the polarizing coil is turned off adiabatically. The nuclear spins that were aligned parallel to the induced field realign in a direction of earth's magnetic field and precess about the earth's magnetic field with a Larmor frequency corresponding to the earth's field. This frequency is within the audio frequency (AF) band at about 2.7 kHz. A second coil is pulsed with a Carr-Purcell-Meiboom-Gill (CPMG) sequence (or other suitable sequence) to perform spin echo measurements on precessing spins. The second coil can be used as a

receiving antenna for the purpose. Additionally, a third coil can be used for detecting the spin echo signals. [see Taicher, column 4, lines 12-26]

It is respectfully submitted that *nowhere* does Taicher disclose the feature of, for example, a case having one or plural opening parts within the range keeping the durability of the body of the case, as recited in, for example, claim 1 of the present application. As illustrated in Figure 1 of Taicher, a tool 11 has a pair of coils 13 and 15 wound on a non-conductive core. [see Taicher, column 4, lines 57-67 and Figure 1] An alternative embodiment is illustrated in Figure 2, in which the transmitter coil 15 is elongated along the longitudinal axis of the borehole. [see Taicher, column 6, lines 10-10-13 and Figure 2] Another alternative embodiment is illustrated in Figure 3, in which instead of a single transmitter coil 15, a pair of orthogonal coils 15a, 15b is used for the tool 11, with the coil axes orthogonal to the tool axis. [see Taicher, column 6, lines 51-64 and Figure 3] Although the tool 11 can be conveyed in a borehole 10, Applicant respectfully notes that *nowhere* in any of the illustrations or in the corresponding description does Taicher illustrate a case having one or plural opening parts.

However, despite the lack of any illustration or disclosure of such a feature, the Patent Office baldly asserts that Taicher discloses that the tool 11 has one or more opening parts by referring to Figures 1-3 and the specification of Taicher. It is respectfully submitted that the Patent Office is misconstruing, misunderstanding and misinterpreting Taicher, as there are clearly *no* opening parts illustrated in any of the figures – each of the figures merely illustrates a cylindrical housing of tool 11 that *fully encloses and covers* various coils. The detailed description of Taicher is similarly lacking in any disclosure of the feature of opening parts in a case.

If this rejection is repeated, the Patent Office is specifically requested to point out the exact feature illustrated in the figures and the precise lines of text disclosed by Taicher that discloses a feature that is neither illustrated nor otherwise disclosed by Taicher.

Independent claim 7 recites features similar to those recited in independent claim 1, and is, therefore, patentably distinguishable over Taicher for at least those reasons stated above with regard to claim 1.

Dependent claims 2-6 and 8-12 variously depend from independent claims 1 and 7, and are, therefore, patentably distinguishable over Taicher for at least those reasons stated above with regard to claims 1 and 7.

For example, with respect to dependent claims 2 and 8, it is respectfully submitted that *nowhere* does Taicher disclose the feature of at least one of the plural opening parts being formed in said case at the position near the part where a current flowing in the at least two elements is large. As discussed previously, it is respectfully submitted that *nowhere* in any of the illustrations or in the corresponding text does Taicher illustrate or otherwise disclose a case having one or plural opening parts. In particular, *nowhere* does Taicher illustrate or otherwise disclose at least one of plural opening parts being formed anywhere in or on the tool 11.

With respect to the rejection of dependent claims 3 and 9, it is respectfully submitted that *nowhere* does Taicher disclose the feature of at least one of the opening parts being formed at the position near the part where at least two elements are joined. As discussed previously, it is respectfully submitted that *nowhere* in any of the illustrations or in the corresponding text does Taicher illustrate a case having one or plural opening parts. In particular, *nowhere* does Taicher illustrate or otherwise disclose at least one of plural opening parts being formed anywhere in or on the tool 11.

With respect to the rejection of dependent claims 4 and 10, it is respectfully submitted that *nowhere* does Taicher disclose the feature of at least one of the opening parts being formed at the position near the part where a power supply point to at least two elements is formed. As discussed previously, it is respectfully submitted that *nowhere* in any of the illustrations or in the corresponding text does Taicher illustrate a case having one or plural opening parts. In particular, *nowhere* does Taicher illustrate or otherwise disclose at least one of plural opening parts being formed anywhere in or on the tool 11.

If the rejection of claims 2, 3, 4, 8, 9 and 10 are repeated, the Patent Office is specifically requested to point out where Taicher discloses one or more opening parts being formed in or on the tool 11, when there are clearly *no* opening parts illustrated in any of the figures or disclosed anywhere in the corresponding description.

With respect to the rejection of claims 5 and 11, it is respectfully submitted that *nowhere* does Taicher disclose the feature a door is formed at the position of each of the plural opening parts, and the door is opened when it is required. As discussed previously, it is respectfully submitted that *nowhere* in any of the illustrations or in the corresponding text does Taicher illustrate a case having one or plural opening parts. Additionally, *nowhere* does Taicher disclose or otherwise illustrate any type of door or door mechanism.

If the rejection of claims 5 and 11 are repeated, the Patent Office is specifically requested to point out where Taicher discloses a door formed at an opening part, when there are clearly *no* opening parts and clearly *no* corresponding doors illustrated in any of the figures or disclosed anywhere in the specification.

With respect to the rejection of claims 6 and 12, it is respectfully submitted that *nowhere* does Taicher disclose the feature of a case that is made of a resin. It is respectfully noted that

there is *no* mention or reference to any type or form of “resin” made anywhere in Taicher. Rather, the Patent Office baldly asserts that “Taicher discloses said case is made of a resin,” and simply points to Figures 1-3 of Taicher. It is respectfully submitted that nowhere in these figures does Taicher indicate that the tool 11 or any part thereof is made of a resin. Given the absence of any disclosure of a “resin” in Taicher, if this rejection is repeated, the Patent Office if respectfully requested to specifically point out where and how Taicher can disclose a feature that is not disclosed, discussed or even mentioned in the specification or illustrated in the figures.

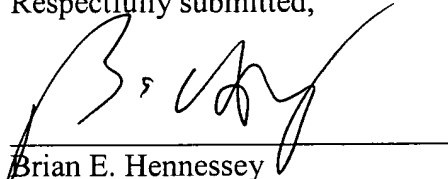
For at least the foregoing reasons, it is respectfully submitted that Taicher does not anticipate the subject matter of claims 1-12.

Additionally, for at least the foregoing reasons, it is respectfully submitted that Taicher does not anticipate the subject matter of claims 13-18.

Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

All of the rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and a notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this response or the application in general, the Examiner is urged to contact the undersigned at (212) 940-8800.

Respectfully submitted,



Brian E. Hennessey
Reg. No. 51,271

CUSTOMER NUMBER 026304
Telephone: (212) 940-6311
Fax: (212) 940-8986 or 8987
Docket No.: NECU 20.463 (100806-00211)
BEH:pm